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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,544	10/23/2003	Wim Henderickx	Q77528	6418
23373	7590	11/28/2007	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			SONI, KETAN S	
			ART UNIT	PAPER NUMBER
			2619	
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			11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/690,544

Applicant(s)

HENDERICKX ET AL.

Examiner

Ketan Soni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/23/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Applicant's Amendment filed on 09/11/2007 has been acknowledged. Claims 1, 2, 3, 5, 6, 7, 8, 9 are amended. Drawings filed on 10/23/2003 are accepted and certified copy of foreign priority application has been received on 02/09/2004.
- Claim: 4 has been cancelled.
- This action is made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by DiBiasio et al. (US Patent # 7225271 B1).

Consider **claim: 1** (currently amended), DiBiasio et al. discloses a telecommunication router (Fig 4, 5) connected to a termination link and comprising a processor (Fig 5 @ 510, Queue Selector/Scheduler) adapted to handle packets of data received from said link (see Fig 4, 5), the telecommunication router comprising a plurality of queues adapted to store packets of data (figure: 5 @ 506) before said

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packets of data are transferred to said processor, and a packet classifier (fig 5 @ 502) adapted to receive said packets of data from said termination link, to classify said received packets of data according to predetermined types (Priority types, column: 7, lines: 6-20; and flow diagram: 6B), and to forward each of said classified packets of data towards one queue of said plurality of queues, said one queue being selected according to the type of each of said classified packets of data (realtime packets or non real-time packets), wherein each of said predetermined types (data type i.e. voice or data) is associated to a predetermined priority (Priority relates to data type), said processor is adapted to retrieve packets of data from the queues of said plurality according to predetermined priority rules (The top level in the hierarchy preferably uses a priority queuing algorithm with the PQ 504 being served at the highest priority while the reserved queues 506 and the default queue 508 are served at the bottom or lowest priority, column: 7, lines: 27-30); and each queue of said plurality of queues is controlled by a queue manager adapted to discard packets coming from said packet classifier when a predetermined threshold filling level of the queue is reached (The admission control entity 430, then determines whether sufficient available bandwidth also exists at the interface, if not sufficient then discard, column: 10, lines: 56-59; Admission Control block (fig: 6c, Step: 628) controls the incoming traffic, and under certain conditions of the reservation request, incoming call or traffic can not be proceed (blocked) (col: 11, lines: 40-50). In addition DiBiasio discloses that RSVP engine performs admission control, col: 11, lines: 5-6. And RSVP

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engine directs the classification engine to place packets in priority queue, col: 12, lines: 6-8. As shown in Fig: 5, Queue selector 510 manages the queues Q1-Q4).

Consider **claim: 2** (currently amended), and as applied to claim: 1 above, DiBiasio et al. discloses the telecommunication router, wherein said processor is adapted to retrieve packets of data from a queue associated to a relatively higher predetermined priority prior to retrieving packets of data from another queue associated to a relatively lower predetermined priority. (Queue selector/scheduler 510 is preferably a multi, level hierarchical scheduler. The top level in the hierarchy preferably uses a Priority queuing algorithm with the PQ 504 being served at the highest priority while the reserved queues 506 and the default queue 508 are served at the bottom or lowest priority, column: 7, lines: 26-31).

Consider **claim: 3** (currently amended), and as applied to claim: 1 above, DiBiasio et al. discloses the telecommunication router, wherein said packet classifier is adapted to estimate said predetermined priority by analyzing the content of a packet and to forward the analyzed packet to the queue corresponding to the estimated priority (In particular, each reserved queue 506a d and the default queue 508 is assigned its own weight based on packets content, and packets are drained from the reserved and default queues 506, 508 based on the assigned weights, column: 7, lines: 36-40).

Consider **claim: 5** (currently amended), and as applied to claim: 1 above, DiBiasio et al. discloses the telecommunication router, wherein each queue of said

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plurality of queues may have a different predetermined threshold filling level (As shown in figure: 6B, step 622, flow analyzer 432 determines whether corresponding traffic carries real time traffic or non real time traffic. The flow analyzer 432 then selects and assigns an appropriate queue and/or queue servicing algorithm or selection strategy to the real-time voice traffic flow and non real time traffic flow, column: 10, lines: 37-40).

Consider **claim: 6** (currently amended), and as applied to claim: 1 above, DiBiasio et al. discloses the telecommunication router, wherein said processor (PROC) is adapted to retrieve packets of data from said queues according to the load of said processor (The admission control entity 430 then determines whether the output interface 406b has sufficient available bandwidth to support the reservation in the same manner as described above. Assuming there is sufficient available bandwidth as well, the RSVP engine 424 then assigns and reserves the resources, as shown in fig: 6C, block: 630 column: 13, lines: 8-12).

Consider **claim: 7** (currently amended), and as applied to claim: 1 above, DiBiasio et al. discloses the telecommunication router, wherein plurality of termination links (TL) are connected to said packet classifier (As shown in figure: 5, plurality of input packets 514 are connected to classification engine 502).

Consider **claim: 8** (currently amended), and as applied to claim: 1 above, DiBiasio et al. discloses the telecommunication router, wherein a plurality of processors are adapted to retrieve packets of data from said queues. (As shown in figure: 4,

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pluralities of processors are used for Packet receiver, traffic scheduling, forwarding engine, RSVP engine).

Consider **claim: 9** (currently amended), and as applied to claim: 1 above, DiBiasio et al. discloses the telecommunication router, wherein said packet classifier (CL) is adapted to forward to an output port of said telecommunication router packets that are not intended to said processor (The flow analyzer 432 determines whether the respective values from the flow spec object 806 satisfy the above set of heuristics, as indicated at decision block 622. If they do, the flow analyzer 432 "concludes" that the corresponding traffic flow will be carrying real-time voice traffic, as indicated by block 624. The flow analyzer 432 then selects and assigns an appropriate queue and/or queue servicing algorithm or selection strategy to the real-time voice traffic flow, as indicated at block 626, column: 10, lines: 35-42).

Response to Arguments

Applicant's arguments filed on 09/11/2007 with respect to claim 1 have been fully considered but they are not persuasive for the following reason:

In the present application, Applicant basically argues, that claim 1 should be patentable because of the following amendment of claim 1: "each queue of said plurality of queues is controlled by a queue manager adapted to discard packets coming from said packet classifier when a predetermined threshold filling level of the queue is reached."

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The Examiner respectfully disagrees with Applicant's argument and interpretation of DiBiasio et al. as failing to disclose "each queue of said plurality of queues is controlled by a queue manager adapted to discard packets coming from said packet classifier when a predetermined threshold filling level of the queue is reached." DiBiasio clearly shows that Admission Control block (fig: 6c, Step: 628) controls the incoming traffic, and under certain conditions of the reservation request, incoming call or traffic can not be proceed (blocked) (col: 11, lines: 40-50). In addition DiBiasio discloses that RSVP engine performs admission control, col: 11, lines: 5-6. And RSVP engine directs the classification engine to place packets in priority queue, col: 12, lines: 6-8. As shown in Fig: 5, Queue selector 510 manages the queues Q1-Q4.

In the present application, Applicant also argues that mechanism of DiBiasio deals with only "packets received for transmission," as shown in Fig. 5.

The Examiner respectfully disagrees with Applicant's argument and interpretation of the mechanism of DiBiasio deals with only "packets received for transmission," as shown in Fig. 5. However as shown in Fig: 5, plurality of queues Q1 – Q4 and Priority Queue are received by Queue Selector/Scheduler for further processing. Thus classification engine deals with both packets received for transmission and RSVP engine directs classification engine to place packets into Priority Queue (Fig: 5, and col: 12, lines: 6-8).

Therefore, in view of the above reasons and having addressed Applicant's argument, the previous rejection is maintained and made FINAL by the Examiner.

Conclusion

Therefore, in view of the above reasons and having addressed Applicant's argument, the previous rejection is maintained and made FINAL by the Examiner.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

- Lin et al. (U.S. Patent # 7106731 B1) discloses: Router with class of service mapping.
- Olkkonen et al. (U.S. Patent # 6407999 B1) discloses: Method and router in a packet network with priority class.
- Elwalid et al. (U.S. Patent # 6353616 B1) discloses: Adaptive processor scheduler and method for reservation protocol message processing
- Karri et al. (U.S. Patent # 7212495 B2) discloses: Signaling for reserving a communications path.
- Terrell et al. (U.S. Pub # US 20030210686 A1) discloses: ROUTER AND METHODS USING NETWORK ADDRESSES FOR VIRTUALIZATION

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- Ma et al. (U.S. Patent # 6798743 B1) discloses: Packet prioritization processing technique for routing traffic in a packet-switched computer network
- Tsuchiya et al. (U.S. Pub # 20020090002 A1) discloses: Multicast routing method and an apparatus for routing a multicast packet.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ketan Soni whose telephone number is (571) 270-1782.

The Examiner can normally be reached on Monday-Thursday from 7:30am to 6:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Vu, Huy D. can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028. If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Ketan Soni

ks

Nov 21, 2007.

A handwritten signature in black ink, appearing to read 'Huy D. Vu', with a long horizontal line extending to the right.

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600